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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,557	02/27/2004	C. Brent Dane	MICI 1003-2	9248

22470 7590 06/09/2005

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EXAMINER

EVANS, GEOFFREY S

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,557

Applicant(s)

DANE ET AL.

Examiner

Geoffrey S. Evans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 7, 12, 14-21 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-11, 13, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3,4,22 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakai et al. in U.S. Patent No. 5,670,069. Nakai et al. discloses a laser system (element 100), target delivery optics (element 4), a relay telescope (element 2) , and baffle (element 2b) with a pinhole opening (element 2p) (see column 3,line 65 to column 4,line 54). Regarding claim 4, Nakai et al. discloses in figure 2 a pinhole with a tapered shape. Regarding claim 22, inherently the pinhole will reflect (or block) away some of the light reflected from the workpiece from passing to the laser system.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hackel et al. in U.S. Patent No. 5,239,408 in view of Nakai et al. in U.S. Patent No. 5,670,069. Hackel et al. has as shown in figure 2 a laser system producing an output beam, but does not disclose target delivery optics and does not disclose a relay telescope located between the laser system and the target delivery optics. Nakai et al. teaches a laser system (element 100), target delivery optics (element 4), a relay telescope (element 2) between the laser system and the target delivery optics, and baffle (element 2b) with a pinhole opening (element 2p) (see column 3, line 65 to column 4, line 54). It would have been obvious to adapt Hackel et al.(408) in view of Nakai et al. to provide this to remove non-focusing components of the laser light (see column 1, lines 53-61 of Nakai et al.). Regarding claim 2, Hackel et al. discloses all of the elements of claim 2 (see figure 2).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hackel et al. in U.S. Patent No. 5,239,408 in view of Nakai et al. in U.S. Patent No. 5,670,069. as applied to claim 1 above, and further in view of Walters et al. in U.S. Patent Application Publication No. 2004/0200341 A1. Walters et al. teaches laser shock processing with 50 Joule laser pulses with a 20 nanosecond duration. It would have been obvious to adapt Hackel et al.(408) in view of Nakai et al. and Walters et al. to provide this to harden the workpiece surface.

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7. Claims 8,10,11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toller et al. in U.S. Patent No. 6,127,649 in view of Nakai et al. in U.S. Patent No. 5,670,069. Toller et al. discloses a workpiece robot cell and target delivery optics for laser peening. Toller et al. does not describe a relay telescope having a focal point and a baffle located at the telescope focal point. Nakai et al. teaches a laser system (element 100), target delivery optics (element 4), a relay telescope (element 2) between the laser system and the target delivery optics, and baffle (element 2b) with a pinhole opening (element 2p) having a tapered shape(see column 3,line 65 to column 4,line 54). It would have been obvious to adapt Toller et al. in view of Nakai et al. to provide this to to remove non-focusing components of the laser light (see column 1,lines 53-61 of Nakai et al.). Inherently the pinhole will prevent out of focus back radiation from reaching the laser system.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toller et al. in U.S. Patent No. 6,127,649 in view of Nakai et al. in U.S. Patent No. 5,670,069 as applied to claim 8 above, and further in view of Hackel et al. in U.S. Patent No. 6,198,069. Hackel teaches a gain medium, a polarization rotator, a plurality of reflectors, a phase conjugator (element 260) and an intra-cavity relay telescope (element 220)(see figure 2) for an improved laser shock processing system. It would have been obvious to adapt Toller et al. in view of Nakai et al. and Hackel et al.(069) to provide this to supply near uniform intensity of the laser beam to the target delivery optics.

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9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toller et al. in U.S. Patent No. 6,127,649 in view of Nakai et al. in U.S. Patent No. 5,670,06 as applied to claim 8 above, and further in view of Walters et al. in U.S. Patent Application Publication No. 2004/0200341 A1. Walters et al. teaches laser shock processing with 50 Joule laser pulses with a 20 nanosecond duration (see paragraph 183). It would have been obvious to adapt Toller et al. in view of Nakai et al. and Walters et al. to provide this to harden the workpiece surface.

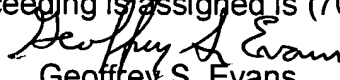
10. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

11. Claims 5, 7, 12, 14-21 and 24 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

GSE


Geoffrey S. Evans
Primary Examiner
Group 1700